

Abstract

Disclosed are a protein conjugate with improved in vivo duration and stability and the use thereof. The protein conjugate includes a physiologically active polypeptide, a non-peptide polymer and an immunoglobulin Fc fragment. Since the three components are covalently linked, the protein conjugate has extended in vivo duration and enhanced stability for the physiologically active polypeptide. The protein conjugate maintains the in vivo activity at relatively high levels and remarkably increases the serum half-life for the physiologically active polypeptide, with less risk of inducing undesirable immune responses. Thus, the protein conjugate is useful for developing long-acting formulations of various polypeptide drugs.